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AUTHORIZED BY:

DATE: 5/16/13

APPENDIX M:

STATEMENT OF LAND OWNERSHIP

9404027

APPENDIX L:

RECLAMATION PLAN

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I. PURPOSE

The purpose of the South L-Bar reclamation program is to restore land disturbed by operations to a productive condition matching its state prior to activity. This includes: removal of structures, containment of radioactive materials, stabilization and covering of containment areas, and re-establishment of plant life suitable for low-density livestock grazing. It is probable that grazing and wildlife habitat will continue to be the uses of the project area. There are no industrial or urban developments in the area and none are foreseen.

It must be realized that the following plan reflects state-of-theart techniques and must be considered tentative. Advances in technology and changes in reclamation requirements between now and the end of the project could change some of the items presented.

The format is as follows:

- (A) Decommissioning of Mine and Mill Sites
- (B) Reclamation of Tailings Impoundment Area
- (C) Borrow Material Area
- (D) Revegetation
- (E) Cost Summary

(A) Decommissioning of Mine and Mill Sites

Upon cessation of mining and milling activities, the decommissioning of the physical plant will take place. This will involve the disassembling of all structures to the concrete foundations and salvaging and removal of these items. The items which are unsalvageable or contaminated will be placed in the tailings pond prior to its reclamation (see Section B). All vent shafts and the main shaft will be sealed.

The sites will then be scanned and, where appropriate, be excavated and the material removed to the tailings area to achieve background levels. Cover material of a suitable nature (i.e., capable of supporting plant life) will be placed over the affected areas, graded, and protected until the vegetative cover is established. This activity will apply to the various roads in the immediate vicinity.

At this time, it is assumed that salvage receipts will offset the decommissioning costs.

(B) Tailings Impoundment Area

The tailings area will be stabilized during the prereclamation period. This will consist of:

- 1. Allowing all pond water to evaporate, including that provided by the horizontal drains;
- 2. Maintenance of existing interceptor channels to insure stability of the impoundment area and the established drainage patterns;

3. Control of dust by interim soil cover or chemical stabilizing agents as necessary.

For the purposes of this discussion, a total cover of 6-ft (5-ft of miscellaneous overburden capped with 1-ft of top-soil) is assumed and reflected in the following discussion of Volumes and Cost Estimates. However, it must be stressed that this assumption's validity is subject to the actual requirements that will be in effect at the time of final site reclamation. The cost per acre for the 6-ft case will be higher than the cost per acre for less cover due to less borrow area disturbance and reclamation. Analogously, the price per acre will be higher if more than 6-ft is required due to greater borrow area disturbance and reclamation.

All radioactive waste from the decommissioning activities, mine waste pile, and road cleanup will be placed in the tailings impoundment. The material is not considered in the proposed six-feet of cover design criterion (5-ft of miscellaneous, non-hazardous overburden capped with 1-ft of soil).

The cover material will be excavated from a hillside south of the tailings area (see Figure L-1). This excavation will provide the necessary cover for the tailings area, mill and mine sites, and road cover.

The design excavation is of adequate capacity to provide cover material in the following:

Misc. Overburden (5-ft)	1,568,000-yds ³
Topsoil Cover on Tailings (1-ft)	392,000-yds ³
Topsoil Road and Plant Site Cover (1-ft)	40,000-yds ³
Plus 10% Contingency	200,000-yds ³
Design Capacity Total	2,200,000-yds ³

The material for soil cover is primarily decomposed Mancos Shale. This material is currently supporting plant growth. The source also contains cobble-size basalt which will be scraped up and placed on the dam face to a thickness of 18-in, following the

sloping work to a 5: 1-horizontal: vertical slope.

The soil will be scraped and saved for the final reclamation. The borrow area will then be excavated in two 40-ft high benches as shown in Figure L-2. The site will be excavated to maintain the general shape of the existing landform.

This material will then be laid down to a thickness of 5-ft with a minor grade of -0.25% sloping towards the west (the pre-project runoff pattern). The equipment will compact the material.

The soil will then be placed to a thickness of 1-ft and then be disked and seeded. Figure L-3 depicts a generalized cross-section of the reclaim condition at the tailings area.

(C) Borrow Material Area

The borrow area highwalls will be drilled and blasted and sloped by bulldozer to a 3: 1-horizontal: vertical slope. This will provide long-term stabilization of the area. The area (approximately 60-acres) will then be plated with 1-ft of topsoil and reclaimed. Figure L-4 shows the final configuration.

(D) Revegetation

Upon completion of the overburden and soil placement work, the soil will be disked to loosen the compaction resulting from placement in order to establish good initial growth.

L-4

Mulching will consist of straw material. The purpose of the mulch is two-fold: retard wind erosion and improve seed moisture conditions.

Soil tests will be conducted prior to seeding to determine the types and quantities of fertilizer required, if any.

A detailed discussion of seed type is unavailable at this time, but use of native plants is anticipated. Studies will be conducted to determine the types to be used.

Seeding will be done mechanically with a rangeland drill in the larger areas. Fringe areas too small for the drill will be seeded by broadcasting and disking.

Seeding will need to take place by early summer in order to insure that the maximum amount of moisture is received from the sporadic summer rains common to the area.

No use of herbicides is anticipated at this time, however, should it become necessary to control any plants detrimental to the establishment of the desired plant growth, control will comply with applicable state and federal regulations.

Irrigation will not be used in this reclamation program for two reasons:

- 1. It may stimulate the growth of undesirable plant species exceeding that of the desired species; and
- 2. It may create an artifical environment attracting inordinately large numbers of livestock and wildlife which may damage or destroy the new vegetation (see Figure L-5 for final reclaimed configuration).

(E) Cost Summary

1. 2. 3. 4.	Scrape mill area for waste Scrape mine area for waste Clean all access roads Rehandle mine waste pile to pond Subtotal on tailings pond	22,000-yds ³ 12,000-yds ³ 15,000-yds ³ 180,000-yds ³ 229,000-yds ³	x \$2.00/yd ³ x \$1.00/yd ³ x \$1.00/yd ³	=	24M 15M 180M
5. 6.	Cobble placement on dam face (18-in think) 1/Slope tailings where applicable, excavate cover, haul, place, grade	23,000-yds ³ :			\$ 92M
7.	Reclaim after soil placement	•	x \$2000/yd x \$2000/ac		450M
8.	Reclaim roads and physical plant sites		x \$2000/ac	=	50M
9.	Reclaim borrow area by sloping and seeding				300M
	Subtotal for reclamation	250-ac		=	\$ 9,692M
	Total - tailings pond and reclamation				\$ 9,955M
	Plus 10% Contingency				996M
	GRAND TOTAL				\$10,951M

 $[\]underline{\mathbf{1}}/$ Replaces need for gravel and plant.

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Typical X-Section—Reclaimed Tailings Area

Scale-I" = 20'

Iff of Topsell

5ft of Misc Overburden

Dam faced with

Bin. of Basalt Cobbles

SLOPE TAILING TO
TOE of Dom

TAILINGS

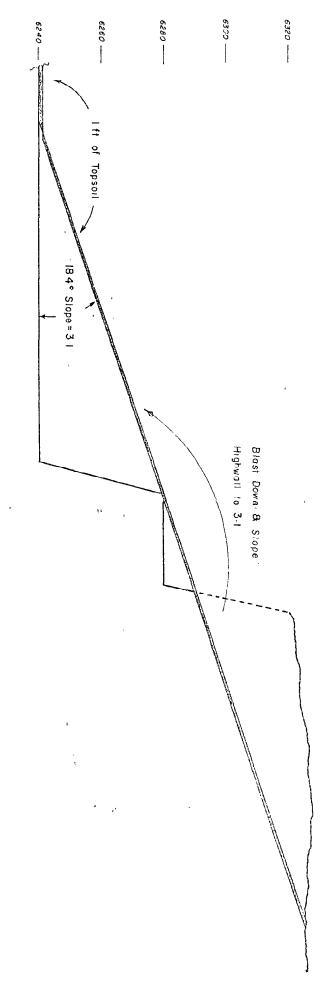
APPROXIMATE ORIGINAL GROUND SURFACE

Final Dam Face Slope = 5H: IV

FIG. L-3

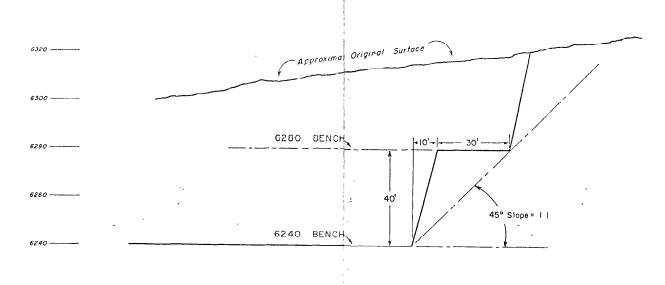
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Borrow Excavation - Reclaimed Profile

Scale: I" = 20'



Borrow Excaution Profile

Scale | 20'

FIG. L-1

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